



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/618,419	07/11/2003	David John Hillis	MRKS/0122	7081

7590

08/23/2006

WILLIAM B. PATTERSON
MOSER, PATTERSON & SHERIDAN, L.L.P.
Suite 1500
3040 Post Oak Blvd.
Houston, TX 77056

EXAMINER

LE, HUNG CHARLIE

ART UNIT

PAPER NUMBER

3663

DATE MAILED: 08/23/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/618,419

Applicant(s)

HILLIS ET AL.

Examiner

Hung C. Le

Art Unit

3663

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 May 2006.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 - 53 is/are pending in the application.
- 4a) Of the above claim(s) 30 - 53 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 - 29 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date Various.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 1 - 29 have been considered but are moot in view of the new ground(s) of rejection.

Note: Claims 30 - 53 were cancelled by applicant.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claim 14 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The term "...circumferentially spaced." is a relative term. It is not known what all is meant and encompasses by the term.

4. Claim 15 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The term "...axially spaced." is a relative term. It is not known what all is meant and

encompasses by the term.

5. Claim 21 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The term "...swage-expanded." is a relative term. It is not known what all is meant and encompasses by the term.

6. Claim 22 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The term "...swage-expanding..." is a relative term. It is not known what all is meant and encompasses by the term.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claims 1 – 29 are rejected under 35 U.S.C. 102(b) as being anticipated by Metcalfe

et al. (US 6,527,049 B2).

With respect to claim 1: Metcalfe et al. (Abstract, Figs. 1 – 3) discloses: A method of increasing collapse resistance of a tubular, the method comprising:

- (a) locating a tool having at least one bearing member within the tubular;
- (b) placing the bearing member in engagement with a wall of the tubular to apply a radial force to a discrete zone of the wall;
- (c) applying said radial force to further discrete zones of the wall, and
- (d) selecting a level of the radial force to increase the collapse of the tubular.

While patent drawings are not drawn to scale, relationships clearly shown in the drawings of a reference patent cannot be disregarded in determining the patentability of claims. See In re Mraz, 59 CCPA 866, 455 F.2d 1069, 173 USPQ 25 (1972).

With respect to claim 2: Metcalfe et al. (Abstract, Figs. 1 – 3) further discloses: wherein said radial force is selected to induce compressive yield of at least an inner portion of the wall.

With respect to claim 3: Metcalfe et al. (Abstract, Figs. 1 – 3) further discloses: wherein said radial force is selected to induce plastic deformation of at least an inner portion of the wall.

With respect to claim 4: Metcalfe et al. (Abstract, Figs. 1 – 3) further discloses:
wherein the bearing member is a rolling element and the tool is moved relative to the tubular to provide a rolling contact between the rolling element and the tubular wall.

With respect to claim 5: Metcalfe et al. (Abstract, Figs. 1 – 3) further discloses:
moving the tool relative to the tubular to provide a sliding contact between the bearing member and the tubular wall.

With respect to claim 6: Metcalfe et al. (Abstract, Figs. 1 – 3) further discloses:
Wherein the tool is advanced axially relative to the tubular.

With respect to claim 7: Metcalfe et al. (Abstract, Figs. 1 – 3) further discloses:
Wherein the tool is rotated relative to the tubular about a longitudinal axis of the tubular.

With respect to claim 8: Metcalfe et al. (Abstract, Figs. 1 – 3) further discloses:
Wherein the tool is located within the tubular.

With respect to claim 9: Metcalfe et al. (Abstract, Figs. 1 – 3) further discloses:
Wherein the tubular is subject to a degree of diametric expansion.

With respect to claim 10: Metcalfe et al. (Abstract, Figs. 1 – 3) further discloses:
Wherein the tubular is subject to permanent diametric expansion.

With respect to claim 11: Metcalfe et al (Abstract, Figs. 1 – 3) further discloses:
wherein the tubular experiences little or no diametric expansion.

With respect to claim 12: Metcalfe et al. (Abstract, Figs. 1 – 3) further discloses:
wherein the tool is moved relative to the tubular such that the bearing member describes a helical path along the tubular wall.

With respect to claim 13: Metcalfe et al. (Abstract, Figs. 1 – 3) further discloses:
wherein the tool has a plurality of bearing members, and each bearing member is urged into engagement with the wall of the tubular to impart a radial force to a respective discrete zone of the tubular wall.

With respect to claim 14: Metcalfe et al. (Abstract, Figs. 1 – 3) further discloses:
wherein the respective discrete zones are circumferentially spaced.

With respect to claim 15: Metcalfe et al. (Abstract, Figs. 1 – 3) further discloses:
wherein the respective discrete zones are axially spaced.

With respect to claim 16: Metcalfe et al. (Abstract, Figs. 1 – 3) further discloses:
wherein the bearing member applies the radial force to the tubular wall as a point load.

With respect to claim 17: Metcalfe et al. (Abstract, Figs. 1 – 3) further discloses:
wherein the bearing member applies the radial force to the tubular wall as a line load.

With respect to claim 18: Metcalfe et al. (Abstract, Figs. 1 – 3) further discloses:
wherein the bearing member is applied pressure actuated.

With respect to claim 19: Metcalfe et al. (Abstract, Figs. 1 – 3) further discloses:
wherein the tool comprises a plurality of bearing members and at least one of the bearing members is independently radially movable.

With respect to claim 20: Metcalfe et al. (Abstract, Figs. 1 – 3) further discloses:
wherein the tool comprises a ball-peening tool and is impacted against the inner surface of the wall.

With respect to claim 21: Metcalfe et al. (Abstract, Figs. 1 – 3) further discloses:
wherein the tubular has been previously swage-expanded.

Art Unit: 3663

With respect to claim 22: Metcalfe et al. (Abstract, Figs. 1 – 3) further discloses:
swage-expanding the tubular prior to steps (b) and (c).

With respect to claim 23: Metcalfe et al. (Abstract, Figs. 1 – 3) further discloses:
when executed on surface.

With respect to claim 24: Metcalfe et al. (Abstract, Figs. 1 – 3) further discloses:
Locating the tubular in a wellbore drilled to access hydrocarbon reservoirs, wherein
steps (a) to (c) are executed downhole within the wellbore.

With respect to claim 25: Metcalfe et al. (Abstract, Figs. 1 – 3) further discloses:
wherein the tubular is located within a larger diameter tubular.

With respect to claim 26: Metcalfe et al. (Abstract, Figs. 1 – 3) further discloses:
wherein the larger diameter tubular is substantially unexpandable.

With respect to claim 27: Metcalfe et al. (Abstract, Figs. 1 – 3) further discloses:
wherein the tool creates a strain path in the wall of the tubular having a
circumferential element.

With respect to claim 28: Metcalfe et al. (Abstract, Figs. 1 – 3) further discloses:
wherein the tool creates a circumferential strain path.

With respect to claim 29: Metcalfe et al. (Abstract, Figs. 1 – 3) further discloses:
wherein the tool creates a helical strain path.

9. The statements of intended use or field of use, e.g., “is selected to, is subject to, etc...” clauses are essentially method limitations or statements of intended or desired use. Thus, these claims as well as other statements of intended use do not serve to patentably distinguish the claimed structure over that of the reference.

See In re Pearson, 181 USPQ 641; In re Yanush, 177 USPQ 705; In re Finsterwalder, 168 USPQ 530; In re Casey, 512 USPQ 235; In re Otto, 136 USPQ 458; Ex parte Masham, 2 USPQ 2nd 1647.

See MPEP § 2114 which states:

A claim containing a “recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from the prior art apparatus” if the prior art apparatus teaches all the structural limitations of the claim. Ex parte Masham, 2 USPQ 2nd 1647

Claims directed to apparatus must be distinguished from the prior art in terms of structure rather than functions. In re Danly, 120 USPQ 528, 531.

Apparatus claims cover what a device is not what a device does. Hewlett-Packard Co. v. Bausch & Lomb Inc., 15 USPQ2d 1525, 1528.

As set forth in MPEP § 2115, a recitation in a claim to the material or article worked upon does not serve to limit an apparatus claim.

Conclusion

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hung C. Le whose telephone number is 571-272-8757. The examiner can normally be reached on M-F: 07:30am - 05:00 pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jack W. Keith can be reached on 571-272-6878. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

HCL
08/17/06


JACK KEITH
SUPERVISOR, PATENT EXAMINER